

IN THE CLAIMS

Please cancel claims 2 and 5-10 without prejudice, amend claims 1, 3-4, and add claims 11-28 as follows:

1 1. (Currently amended) A transmitter for use in a communication
2 system, the transmitter comprising a digital input, a coding device
3 for generating data bits for transmission, and means for
4 transmitting the data bits during respective frames of a
5 transmission channel, wherein the coding device comprises a coding
6 circuit for generating a coded output having a greater number of
7 bits than the digital input, an interleaving circuit for operating
8 on the coded output to generate a data block comprising a plurality
9 of interleaved words, a rate matching circuit for adjusting the
10 ~~number of bits in a data block, the data block comprising a~~
11 ~~plurality of interleaved words generated by the action of an~~
12 ~~interleaving circuit on a coded output generated by the action of a~~
13 ~~coding circuit on a digital input, the coded output having a~~
14 ~~greater number of bits than the digital input, the rate matching~~
15 ~~circuit having means for adjusting the number of bits in the data~~
16 ~~block using a rate matching pattern to provide data bits for~~
17 ~~transmission during respective frames of a transmission channel,~~
18 ~~characterised in that and means are provided for selecting the rate~~

19 matching pattern depending on ~~the characteristics of the coding~~
20 ~~circuit and of the interleaving circuit~~ a bit deletion/repetition
21 rate, wherein a bit deletion/repetition pattern is selected to
22 ensure that the deleted or repeated bits are not required to enable
23 all bits from the digital input to be reconstructed.

2. (Canceled)

1 3. (Currently amended) A ~~rate matching circuit~~ transmitter as
2 claimed in claim 1 ~~or 2, characterised in that~~ , wherein the rate
3 matching pattern for each interleaved word within the data block is
4 offset with respect to the adjacent interleaved word or words
5 within the block.

1 4. (Currently amended) A ~~rate matching circuit~~ transmitter as
2 claimed in ~~any one of claims 1 to 3, characterised in that~~ ,
3 wherein the rate matching pattern is selected as a function of the
4 interleaving depth of the interleaving circuit.

Claims 5-10. (Canceled)

1 11.(New) A transmitter as claimed in claim 1, wherein the
2 coding circuit applies convolutional coding and said means for
3 selecting is selects said rate matching pattern as a function of the
4 constraint length of the convolutional code.

1 12.(New) A transmitter as claimed in claim 1, further
2 comprising additional coding devices, each for coding a respective
3 digital input, and a multiplexer for combining output data words of
4 said coding device and said additional coding devices for subsequent
5 transmission by the means for transmitting on a single transmission
6 channel.

1 13.(New) A transmitter as claimed in claim 12, wherein outputs
2 of different of said coding device and said additional coding
3 devices are selected to have different data rates, the combined data
4 rate corresponding to the channel capacity of the transmission
5 channel.

1 14.(New) A transmitter as claimed in claim 1, wherein the rate
2 matching pattern forms a matrix including change bits that indicate
3 change of corresponding bits of said interleaved words within said

4 data block, wherein each row of said matrix includes a maximum of
5 one of said change bits.

1 15.(New) A transmitter as claimed in claim 1, wherein said
2 coding circuit has one of a fixed code rate and a predetermined
3 number of rates for a variable data source.

1 16.(New) A transmitter as claimed in claim 1, wherein said
2 interleaving circuit is not adaptive.

1 17.(New) A transmitter as claimed in claim 1, wherein said
2 interleaving circuit has a constant bit rate.

1 18.(New) A transmitter as claimed in claim 1, wherein said
2 coding circuit has one of a fixed code rate and a predetermined
3 number of rates for a variable data source, and wherein said
4 interleaving circuit is not adaptive.

1 19.(New) A transmitter as claimed in claim 1, wherein said
2 rate matching circuit alters a coding rate of said coding circuit.

1 20.(New) A receiver for use in a communication system, the
2 receiver comprising means for receiving a coded digital signal
3 comprising a received data block comprising a plurality of
4 interleaved words, the data block having been processed by a coding
5 device to adjust the number of bits in the data block according to a
6 rate matching pattern, the receiver further comprising a data
7 reconstruction circuit having means for adjusting the number of bits
8 in the data block to reverse the action of the coding device,
9 thereby reconstructing the interleaved words, a de-interleaving
10 circuit having means for generating each of the plurality of
11 interleaved words, a channel decoder, and means for selecting the
12 rate matching pattern as a function of a bit deletion/repetition
13 rate, a bit deletion/repetition pattern having been selected to
14 ensure that the deleted or repeated bits are not required to enable
15 all bits from the digital input to be reconstructed.

1 21.(New) A receiver as claimed in claim 20, wherein the rate
2 matching pattern forms a matrix including change bits that indicate
3 change of corresponding bits of said interleaved words within said
4 received data block, wherein each row of said matrix includes a
5 maximum of one of said change bits.

1 22.(New) A receiver as claimed in claim 20, wherein said
2 coding device has one of a fixed code rate and a predetermined
3 number of rates for a variable data source.

1 23.(New) A receiver as claimed in claim 20, wherein said de-
2 interleaving circuit is not adaptive.

1 24.(New) A receiver as claimed in claim 20, wherein said de-
2 interleaving circuit has a constant bit rate.

1 25.(New) A receiver as claimed in claim 20, wherein said
2 coding device has one of a fixed code rate and a predetermined
3 number of rates for a variable data source, and wherein said de-
4 interleaving circuit is not adaptive.

1 26.(New) A receiver as claimed in claim 20, wherein a coding
2 rate of said coding circuit is altered.

1 27.(New) A method of operating a transmitter for use in a
2 communication system, the method comprising operating on a digital
3 input to generate a coded output having a greater number of bits
4 than the digital input, operating on the coded output to generate a

5 data block comprising a plurality of interleaved words and adjusting
6 the number of bits in the data block using a rate matching pattern
7 to provide data bits for transmission during respective frames of a
8 transmission channel, wherein the rate matching pattern is selected
9 as a function of a bit deletion/repetition rate, a bit
10 deletion/repetition pattern is selected to ensure that the deleted
11 or repeated bits are not required to enable all bits from the
12 digital input to be reconstructed.

1 28.(New) A method of operating a receiver for use in a
2 communication system, the method comprising receiving a coded
3 digital signal comprising a received data block comprising a
4 plurality of interleaved words, the data block having been processed
5 to adjust the number of bits in the data block, adjusting the number
6 of bits in the data block according to a rate matching pattern (44),
7 thereby reconstructing the interleaved words, and de-interleaving
8 and decoding the words to generate an output digital signal, wherein
9 the rate matching pattern is selected as a function of a bit
10 deletion/repetition rate, a bit deletion/repetition pattern having
11 been selected to ensure that the deleted or repeated bits are not
12 required to enable all bits from the digital input to be
13 reconstructed.